

# REMARKS

The present invention is a highly effective erosion control system for use on unvegetated sloped surfaces. The systems as claimed generally comprise a single core layer comprising randomly oriented fibers, and forming a substantially flat upper surface and a substantially flat lower surface, an externally disposed biaxial geogrid fastened to and located on the substantially flat upper surface of the single core layer; and an externally disposed grid-like netting material fastened to and located on the substantially flat lower surface of the single core layer. Importantly, the flexible erosion control matting is structured to resist trapping of sediment within the matting and to allow flowing particulate matter to pass freely over the matting during a hydraulic event in order to control erosion of a substantially unvegetated sloped surface when the matting is placed on said sloped surface. In addition, the biaxial geogrid material and the grid like netting material are different from each other in physical structure.

In a telephonic interview on October 5, 2004 between the Examiner, the Examiner's supervisor, the undersigned attorney of record and Frank Uxa, also an attorney of record, the undersigned has argued that the Examiner's has used impermissible hindsight reasoning to support her rejection of the claims. It appears that the applicant and the Examiner have reached an impasse on this issue. In order to overcome the Examiner's rejections, the applicant has more narrowly amended the claims to include more specific structural limitations.

The claims are now amended to more narrowly define and to distinguish the upper geogrid material from the bottom grid-like netting material.

For background purposes, applicant submits that it is known in the art that a geogrid material is usually of a single or double stranded construction which is either coated multifilament strands forming on single strand or extruded monofilament strands running in either machine or transverse direction. It is known that a geogrid material is differentiated from common netting materials, for example, by the permanency or non-degradability of the structure. (For example, the application as filed identifies the geogrid as being preferably a permanent structure). A geogrid is made of a polymeric material having high modulus construction with consistent aperture geometry such as described in the application as filed and as known to those of skill in the art.

Applicant has amended the claims to more clearly identify the distinctiveness of the geogrid material in comparison to the grid-like netting material. Applicant believes that although the application describes the geogrid material in detail in the application, the distinction between the geogrid material that makes up the top layer and the common netting that makes up the bottom layer of the erosion control matting may be more clearly understood with reference to the drawings as filed.

As clearly shown in the Drawings of the application, specifically in Fig. 4, the geogrid material 16 is physically different, i.e. distinct, in structure than the grid like netting material 18a. For example, the geogrid material is formed of strands having a substantially uniform transverse cross sectional area that is larger in size than the transverse cross sectional area of the strands forming the netting material.

The Examiner has not uncovered any prior art which teaches or even suggests the applicant's invention as a

whole, that is:

a single core layer comprising randomly oriented fibers, and forming a substantially flat upper surface and a substantially flat lower surface,

an externally disposed biaxial geogrid material fastened to and located on the substantially flat upper surface of the single core layer; and

an externally disposed grid-like netting material fastened to and located on the substantially flat lower surface of the single core layer,

the biaxial geogrid material being physically different in structure from the grid-like netting material; and

the flexible erosion control matting is structured to resist trapping of sediment within the matting and to allow flowing particulate matter to pass freely over the matting during a hydraulic event.

The Examiner has rejected claim 28 under 35 USC 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as his invention. More specifically, the Examiner takes issue with the use of the terms "relatively heavy weight" and "relatively lightweight" in the claim.

Applicant has deleted this terminology from claim 28 and believes the terminology in amended claim 28 more clearly defines the invention. Applicant submits that the amendment to the claim overcomes the Examiner's 112 rejection.

The Examiner has amended claim 12 so in order to correct an error in dependency therein, as identified by the Examiner. The applicant appreciates the Examiner's thorough review of the application.

The examiner has rejected claims 28 and 29 under 35 U.S.C. 102(b) as being anticipated by Prunty et al.

Applicant submits that Prunty et al does not disclose, teach or suggest the present invention as defined in the present claims. For example, Prunty et al does not disclose, teach or suggest a erosion control system comprising a flexible erosion control matting including a single core layer comprising randomly oriented fibers, and forming a substantially flat upper surface and a substantially flat lower surface; an externally disposed biaxial geogrid material fastened to and located on the substantially flat upper surface of the single core layer; and an externally disposed grid-like netting material fastened to and located on the substantially flat lower surface of the single core layer; the biaxial geogrid material being physically different in structure from the grid-like netting material; and the flexible erosion control matting structured to resist trapping of sediment within the matting and to allow flowing particulate matter to pass freely over the matting during a hydraulic event in order to control erosion of a substantially unvegetated sloped surface when the matting is placed on said sloped surface.

Applicant submits therefore that the present invention is not anticipated by and is non-obvious in light of Prunty et al.

The Examiner has rejected claims 1-7, 23, 24, and 27 under 35 USC 103(a) as being unpatentable over Fujita et al, in view of Prunty et al and Duffy. Applicant traverses this rejection as it pertains to the present claims.

Applicant submits that none of these references alone or in any combination teach the erosion control system as presently claimed. None of the references teach an erosion control system comprising an erosion control matting a

flexible erosion control matting including a single core layer comprising randomly oriented fibers, and forming a substantially flat upper surface and a substantially flat lower surface; an externally disposed biaxial geogrid material fastened to and located on the substantially flat upper surface of the single core layer; and an externally disposed grid-like netting material fastened to and located on the substantially flat lower surface of the single core layer; the biaxial geogrid material being physically different in structure from the grid-like netting material; and the flexible erosion control matting structured to resist trapping of sediment within the matting and to allow flowing particulate matter to pass freely over the matting during a hydraulic event in order to control erosion of a substantially unvegetated sloped surface when the matting is placed on said sloped surface.

The Applicant submits that the present invention as now claimed is patentable over nay combination of Fujita, Prunty and Duffy.

Applicant further wishes to resubmit the arguments made in the proposed amendment to the claims sent to the Examiner on September 27, 2004 and the arguments made during the telephonic interview. Applicant believes that the Examiner is incorrect in combining the erosion mat of Fujita with the low profile feature of Duffy, to obtain an erosion control mat that is designed to resist trapping of sediment. This reasoning assumes that the person of ordinary skill in the art at the time the invention was made would have been motivated to make a mat that resists trapping of sediment. That is not the case. No where does Duffy state that his mat is given a low profile to resist trapping of sediment. Applicant respectfully submits that the Examiner is basing this rejection on a combination of references with the deficiencies of those references being supplied by

applicant's own teachings.

Again, applicant, and applicant alone, has found that the present erosion control systems, structured as recited in the present claims, and now claimed with additional structural limitations, is effective to resist trapping of sediment. "[A] patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified. This is part of the 'subject matter as a whole' which should always be considered in determining the obviousness of an invention under 35 U.S.C. 103." [emphasis added] In re Spinnoble, 405 F.2d 578, 585, 160 USPQ 237, 243 (CCPA 1969).

The Examiner, employing improper hindsight, uses this knowledge which can be gleaned only from applicant's application which reveals applicants discovery, to combine Fugita and Duffy to reject the present claims. This is an improper rejection because knowledge gleaned only from applicant's disclosure cannot be used to properly reject patent claims. "Any judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure." In re McLaughlin 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971).

As the applicant has continually argued, none of the prior art references disclose, teach or even suggest a flexible matting structured to resist trapping of sediment within the matting and to allow flowing particulate matter to pass freely over the matting during a hydraulic event. This is because, at the time the invention was made, conventional wisdom taught away from such a feature, by

dictated that an erosion control mat should be made to trap sediment in order to be effective. [see Lancaster, Peterson, Stephens et al, and Prunty et al. each of which include teaching away from applicant's invention (see earlier applicant responses to office actions for specific citations.))]

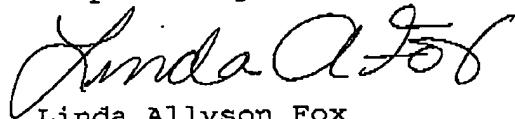
Applicant has further amended the claims to more clearly define the structure of the present invention.

Applicant submits that the present invention as defined in the present claims, is not anticipated by or obvious in light of Fujita, Duffy, Prunty or any of the other references of record, alone or in any combination under 35 U.S.C. 102(b) and 35 U.S.C. 103(a).

In view of the above and in view of arguments presented in applicant's earlier responses to earlier office actions, and the recent argument presented in the proposed amendment to the Examiner, applicant submits that the claims as currently amended define patentable subject matter.

Applicant submits that the application is now in condition for allowance and therefore requests the Examiner pass the application to issuance at an early date.

Respectfully submitted,



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